BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Drains and Culverts at Muneshwara Block Surroundings at Kodigehalli in Ward No. 08.

Estimated Cost : Rs. 40.00 Lakhs

Job Code : 008-18-000010

Head of Account : P-3333 Special Comprehensive Works

Name of Agency: Sri A. Puttaraju

Work order No: BBMP/EE/BTP/WO/218/2018-19 Date: 30.01.2019.

Measurements Recarded on :

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Muneshwara Block R/S 2nd Cross	2	30.00			0.95	0.90	51.30		
		1	7.00			0.95	0.90	5.99		
	Muneshwara Block L/S 3rd Cross	2	30.00			0.95	0.90	51.30		
		1	28.00			0.95	0.90	23.94		
	Muneshwara Block 4th Cross	1	30.00			0.95	0.90	25.65		
		1	17.00			0.95	0.90	14.54		
	Muneshwara Block 3rd Cross L/S	2	30.00			1.10	0.90	59.40		
		1	14.00			1.10	0.90	13.86		
	Muneshwara Block 3rd Cross R/S	3	30.00			1.10	0.90	89.10		
		1	7.00			1.10	0.90	6.93		
	Devinagara 13th Cross L/S	3	30.00			0.95	0.90	76.95		
		1	22.00			0.95	0.90	18.81		
	inside compound	1	15.00			0.80	0.90	10.80		
	Devinagara Main Road	1	30.00			0.95	0.90	25.65		
							Total Qty =	474.21	254.00	120449.00
2	Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Muneshwara Block R/S 2nd Cross	2	30.00			0.95	0.15	8.55		
		1	7.00			0.95	0.15	1.00		
	Muneshwara Block L/S 3rd Cross	2	30.00			0.95	0.15	8.55		
		1	28.00			0.95	0.15	3.99		
	Muneshwara Block 4th Cross	1	30.00			0.95	0.15	4.28		
		1	17.00			0.95	0.15	2.42		
	Muneshwara Block 3rd Cross L/S	2	30.00			1.10	0.15	9.90		
		1	14.00			1.10	0.15	2.31		
	Muneshwara Block 3rd Cross R/S	3	30.00			1.10	0.15	14.85		
		1	7.00			1.10	0.15	1.16		
	Devinagara 13th Cross L/S	3	30.00			0.95	0.15	12.83		
		1	22.00			0.95	0.15	3.14		
	inside compound	1	15.00			0.80	0.15	1.80		
	Devinagara Main Road	1	30.00			0.95	0.15	4.28		
							Total Qty =	79.00	5900.00	466100.00

Assistant Engineer

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
3	Providing laying palin / reinforced cement concrete for Box Drain walls of thicknes 10cm to 20 cm including cenmtering shuttering form work etc. complete as per approved drawiong and design MORTH Specification No. 1500,1700,2200 PCC M 20 Grade upto 0.75 m height using concrete mixture etc complete as per specifications.								Cum	
	Bottom Concrete									
	Muneshwara Block R/S 2nd Cross	2	30.00			0.75	0.15	6.75		
		1	7.00			0.75	0.15	0.79		
	Muneshwara Block L/S 3rd Cross	2	30.00			0.75	0.15	6.75		
		1	28.00			0.75	0.15	3.15		
	Muneshwara Block 4th Cross	1	30.00			0.75	0.15	3.38		
		1	17.00			0.75	0.15	1.91		
	Muneshwara Block 3rd Cross L/S	2	30.00			0.90	0.15	8.10		
		1	14.00			0.90	0.15	1.89		
	Muneshwara Block 3rd Cross R/S	3	30.00			0.90	0.15	12.15		
		1	7.00			0.90	0.15	0.95		
	Devinagara 13th Cross L/S	3	30.00			0.75	0.15	10.13		
		1	22.00			0.75	0.15	2.48		
	inside compound	1	15.00			0.75	0.15	1.69		
	Devinagara Main Road	1	30.00			0.75	0.15	3.38		
	Side Wall									
	Muneshwara Block R/S 2nd Cross	2x2	30.00			0.15	0.60	10.80		
		1x2	7.00			0.15	0.60	1.26		
	Muneshwara Block L/S 3rd Cross	2x2	30.00			0.15	0.60	10.80		
		1x2	28.00			0.15	0.60	5.04		
	Muneshwara Block 4th Cross	1x2	30.00			0.15	0.60	5.40		
		1x2	17.00			0.15	0.60	3.06		
	Muneshwara Block 3rd Cross L/S	2x2	30.00			0.15	0.60	10.80		
		1x2	14.00			0.15	0.60	2.52		
	Muneshwara Block 3rd Cross R/S	3x2	30.00			0.15	0.60	16.20		
		1x2	7.00			0.15	0.60	1.26		
	Devinagara 13th Cross L/S	3x2	30.00			0.15	0.60	16.20		
		1x2	22.00			0.15	0.60	3.96		
	inside compound	1x2	15.00			0.15	0.60	2.70		
	Devinagara Main Road	1x2	30.00			0.15	0.60	5.40		
							Total Qty =	**158.53**	11250.00	**1783463.00**
4	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500								Tonne	
	10mm dia U Shape									
	A	658	2.00		1316.00					
	B	865	2.00		1730.00					
	C	458	2.00		916.00					
					3962.00					
			0.62	Kg/m				**2456.44**	Kgs	
	8 mm dia Distribution									
	A	9	67.00		603.00					
	B	9	88.00		792.00					
	C	9	47.00		423.00					
					1818.00					
			0.39	Kg/m				**709.02**	Kgs	
	10mm dia U Shape									
	D L/S	727	2.10		1526.70					
	R/S	956	2.10		2007.60					
	E	1252	2.00		2504.00					
	F	287	2.00		574.00					
					6612.30					
			0.62	Kg/m				**4099.63**	Kgs	
	8 mm dia Distribution									
		9	74.00		666.00					
		9	97.00		873.00					

Assistant Engineer

Assistant Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Sl No.	Description	No.	L	B1	B2	AV. B	D	Qty	Rate / Unit	Amount
		9	112.00		1008.00					
		9	15.00		135.00					
		9	30.00		270.00					
					2952.00					
			0.39	Kg/m				**1151.28**	Kgs	
								8416.37		
							Total Qty =	**8.42**		
							Qty Limited to =	**7.93**	65000.00	**515450.00**
5	Providing and fixing RCC precast covering slab of 100 mm for drain in cement concrete , M20 using graded granite jelly 20 mm and down size with steel reinforcement including form work lift charges, curing and concrete finishied surfaces of both side etc complete as per specifications.								Sqm	
	Muneshwara Block 2nd Cross	111	0.60			0.75		49.95		
	Muneshwara Block 3rd Cross	146	0.60			0.75		65.70		
	Muneshwara Block 4th Cross	78	0.60			0.75		35.10		
	Devinagara 3rd Cross L/S	123	0.60			0.90		66.42		
	Devinagara 3rd Cross R/S	160	0.60			0.90		86.40		
	Devinagara Main Road	32	0.60			0.75		14.40		
	Devinagara 13th Cross	211	0.60			0.75		94.95		
							Total Qty =	**412.92**	1970.00	**813452.00**
6	Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications.								Cum	
	Muneshwara Block 2nd Cross	1	67.00			0.30	0.075	1.51		
	Muneshwara Block 3rd Cross	1	88.00			0.30	0.075	1.98		
	Muneshwara Block 4th Cross	1	47.00			0.30	0.075	1.06		
	Devinagara 3rd Cross L/S	1	74.00			0.30	0.075	1.67		
	Devinagara 3rd Cross R/S	1	97.00			0.30	0.075	2.18		
	Devinagara Main Road	1	112.00			0.30	0.075	2.52		
							Total Qty =	**10.91**		
							Total Qty Limited to =	**7.89**	6000.00	**47340.00**
									Total	**3746254.00**

Rupees Thirty Seven Lakh(s) Forty Six Thousand Two Hundred Fifty Four Only

Assistant Engineer
Ward No. 08

Assistant Executive Engineer
Kodigehalli Sub Division

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092